SUPPLEMENTAL SECTION B

GENERAL STANDARD OPERATING PROCEDURE FOR SELF-CONTAINED BREATHING APPARATUS

1. INTRODUCTION

SCBAs are for emergency and fumigation use only by designated employees. Emergency use includes unplanned entry into situations where the concentration of a respiratory hazard is unknown, the concentration is above that specified for other types of respirators, or an immediately dangerous to life and health atmosphere exits.

Improper use of SCBA in a hazardous atmosphere may result in injury or death. It is imperative the employees receive adequate training prior to use, plus periodic retraining at least annually. In addition, a written respiratory protection program must be developed in accordance with the Occupational Safety and Health Administration, 29 CFR 1910.139.

2. DEFINITIONS

Approved. SCBA that has been tested and certified to meet minimum requirements by a recognized testing authority. In the U.S. and Canada this is limited to the National Institute for Occupational Safety and Health (NIOSH) and the Mine Safety and Health Administration (MSHA).

Breathing Air. The air provided for an SCBA must meet or exceed the requirements and specifications for Type 1, Grade D or better clean dry air as outlined in the Compressed Gas Association (CGA) Commodity Specification G7.1 (latest edition) or equivalent specification.

SCBA. A device which provides the wearer with a supply of respirable breathing air carried in or generated by the apparatus. When in use, this apparatus requires no intake of air from the environment.

Closed Circuit SCBA. An apparatus in which the exhalation air is rebreathed by the wearer after the carbon dioxide has been effectively removed and a suitable oxygen concentration restored.

Pressure Demand (Positive Pressure) Open Circuit SCBA. An apparatus in which the pressure inside the facepiece, in relation to the immediate environment, is positive during both inhalation and exhalation.

3. REQUIREMENTS

A. <u>General</u>

1. Only approved SCBA with a full facepiece of the closed circuit type or pressure demand (positive pressure) open circuit type will be used for emergency respiratory protective equipment. Filter-canister masks are prohibited for fire fighting and similar emergency uses.

2. SCBA equipped with a "buddy breathing" device or a quick disconnect valve are acceptable if these accessories do not cause damage to the apparatus or restrict the air flow of the apparatus.

3. Locations subject to cold weather conditions will ensure that all NEW purchases of SCBA, including full facepiece, will be capable of performing in temperatures

down to -20 F (-29 C) without malfunction or loss of respiratory protection to the wearer for the duration of the equipment.

B. Equipment and Breathing Air

1. Only SCBA with a service life of 30 minutes or more will be considered acceptable under this standard for emergency use.

   Exception: SCBA having a dated service time of less than 30 minutes may be used for escape.

2. SCBA used in emergency service will be equipped with an automatic low pressure warning device that produces an audible signal to warn the user when the unit's remaining service time has been reduced to 20 - 40% of its rated service time.

3. Suppliers of compressed breathing air will certify and ensure that the quality of the air that they supply will meet the requirements as specified in CGA Specifically G7.1 for Type 1, Grade D or better.

4. Breathing air containers will be legibly marked with the words "Air (list pressure) Compressed for Breathing Purposes." Markings will be by means of stenciling, stamping, or labeling and will not be readily removable. The marking will be located at the valve end and on the cylinder part of the body. The height of the lettering will not be less than 1/25 of the diameter of the container with a minimum height of 1/8 inch (1.3 cm).

C. Medical Requirements

1. Employees will not be assigned tasks which involve the actual or potential use of SCBA unless it has been determined that they are physically able to perform the tasks and use the equipment.

2. Each employee will be evaluated by a physician before beginning SCBA training. See Chapter 11, Section 3, Medical Requirements.

3. Employees will be reevaluated every two years.

D. Training

1. A comprehensive written training program will be established for the specific type of SCBA being used following the information and guidance provided by the manufacturer. Written operating procedures also will be developed and included as part of the training program on the standard use, care, and maintenance of SCBA. The training program will include at least the following:

   a. Written procedures covering safe use in dangerous atmospheres that may be encountered in normal operations and in emergencies.

   b. Practice of the buddy system including voice communications, hand signals, tie ropes, and other emergency equipment.

   c. Fitting instructions including demonstrations and practice in how the respirator will be worn, how to adjust it and how to determine if it fits properly.

   d. Instructions that SCBA will not provide the required degree of protection when conditions such as growth of a beard, sideburns, facial damage, or the absence of one or both dentures prevent a good face seal.

Note: Manufacturers generally have prepared training materials available (i.e., literature, slides, films, etc.) on their equipment.

2. All employees designated to use SCBA should receive refresher training every 6 months and should undergo a monthly familiarization with the device. This can be accomplished during the monthly inspection of the equipment.

3. SCBA training must be conducted by a proficient person who is thoroughly knowledgeable about SCBA.

E. Inspections

1. All SCBA will be inspected routinely after each use. All SCBA will be kept ready for emergency use by making at least monthly inspections to ensure that each unit is in satisfactory working condition. These inspections will include at least the following:

a. Ensure that the regulator, warning devices, and voice pack (if provided) are in good condition and functioning normally.

Note: If the low-air pressure alarm does not ring during its test, remove apparatus from service, tag, and store for repair by authorized personnel.

b. Check the tightness of connections and condition of the face-piece, headbands, valves, and connecting tube.

c. Inspect tank air pressure for "full." If the pressure is down 10% or more from that used in rating the service life, the cylinder will be replaced with a full one.

d. Inspect straps and harness for wear or deterioration.

e. Check to ensure the entire unit is clean.

f. Inspect the cylinder for the date of the last hydrostatic test. (Each cylinder is stamped with the month and year of manufacture or date of the last hydrostatic test.) The cylinder will be hydrostatically tested every five (5) years.

g. Maintain a record of inspection dates and findings for all SCBA.

2. If any discrepancies are found during the inspection that cannot be corrected, the apparatus will be removed from service, tagged, and repaired by authorized personnel.

F. Cleaning and Maintenance

1. After each use, clean all components as required:

a. Wash entire unit with a solution of detergent and water.

b. Rinse mask and breathing tube.

c. Thoroughly dry all parts.

d. Clean and polish mask lens, inside, and outside using a plastic cleaner.

e. Disinfect mask by sponging with a commercially prepared sanitizer or manufacturer's recommended disinfectant.

f. Protect the breathing tube opening on the regulator, clean regulator, and regulator hose by damp sponging.

g. If a case is provided, remove dirt, dust, etc., by brushing.

h. When unit is thoroughly dry, install a fully charged cylinder containing breathing air.

2. Repairs will only be made by properly trained persons using parts designed for SCBA.

3. Do not replace components or make adjustments or repairs beyond the manufacturer’s recommendations.

G. Storage

1. Store SCBA in a location where the units will be protected against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals (i.e., solvents, corrosives, etc.). It is preferable to maintain SCBA in a cool place.

2. SCBA placed at stations and work areas for emergency use will be quickly accessible at all times and stored in containers or covers which are clearly marked.